AMENDMENTS TO THE CLAIMS

Please amend the claims in accordance with the following listing of claims. This listing replaces and supersedes all prior claim listings.

Claim 1. (Currently Amended) Method to denoise a stereo signal comprising a stereo sum signal and a stereo difference signal, **characterized by**

a frequency selective stereo to mono blending based on the masking effect of the human auditory system; and

~~using noise included in the stereo audio signal as a probe signal and an audio component of the audio signal as a mask signal~~ determining the frequency selectivity by dividing the stereo difference signal into subbands.

Claim 2. (Cancelled)

Claim 3. (Cancelled)

Claim 4. (Currently Amended) Method according to claim ~~3,~~ 1, wherein a number of subbands is determined according to the properties of the human auditory system.

Claim 5. (Currently Amended) Method according to claim ~~3,~~ 1, wherein a width of a respective subband is determined according to the properties of the human auditory system.

Claim 6. (Currently Amended) Method according to claim ~~3,~~ 1, wherein every subband of the stereo difference signal which noise component lies above a signal component of a subband of the audio signal corresponding to that of the stereo difference signal is attenuated so that the noise component of the subband of the stereo difference lies below the respective absolute value of masking.

Claim 7. (Previously presented) Method according to claim 6, wherein an attenuation factor of a respective subband is determined by dividing the signal component of

the subband of the audio signal corresponding to the subband of the stereo difference signal by the noise component of the subband of the stereo difference signal.

Claim 8. (Previously presented) Method according to claim 7, wherein the attenuation factor of a respective subband is limited to values between 0 and 1.

Claim 9. (Previously presented) Method according to claim 7, wherein a respective influence factor is subtracted from the attenuation factor of a respective subband to reduce the influence of noise in the signal component to the attenuation signal.

Claim 10. (Previously presented) Method according to claim 6, wherein the noise component of a subband of the stereo difference signal is determined on basis of its noise power which is determined by filtering an in quadrature component of the stereo difference signal into the respective subband and rms filtering the corresponding subband.

Claim 11. (Previously presented) Method according to claim 10, wherein the noise component of a subband of the stereo difference signal is determined by weighting its noise power according to a respective corresponding absolute threshold of masking, the fieldstrength of the received fm signal, a volume of output sound, a background noise level, the signal amplitude power of the audio signal, a speed of a vehicle within which the stereo signal is reproduced, and/or the ratio of the signal power to the noise power of the difference signal of the corresponding subband.

Claim 12. (Previously presented) Method according to claim 6, wherein the signal component corresponding to a subband of the stereo difference signal is determined according to the fieldstrength of the received fm signal, a volume of output sound, a background noise level, the signal amplitude power of the audio signal, a speed of a vehicle within which the stereo

signal is reproduced, and/or the ratio of the signal power to the noise power of the difference signal of the corresponding subband.

Claim 13. (Previously presented) Method according to claim 12, wherein the squared subband signal of the in phase component of the stereo difference signal is weighted with a weighting factor according to the fieldstrength of the received fm signal, a volume of output sound, a background noise level, the signal amplitude power of the audio signal, a speed of a vehicle within which the stereo signal is reproduced, and/or the ratio of the signal power to the noise power of the difference signal of the corresponding subband.

Claim 14. (Cancelled)

Claim 15. (Previously presented) Stereo signal noise reducer, comprising a first filter bank to split the stereo difference signal into a plurality of subbands, respective first multipliers to weight each of the subbands of the stereo difference signal with a respective corresponding control signal, and a first adder to sum all weighted subbands of the stereo difference signal to build a frequency selective weighted stereo difference signal, **characterized in that** a number and width of the subbands obtained via the first filter bank are chosen according to the properties of the human auditory system, and by a weighting factor determination unit which determines a respective control signal frequency selective based on the masking effect of the human auditory system.

Claim 16. (Previously presented) Noise reducer according to claim 15, wherein said weighting factor determination unit comprises

- a respective division unit to determine a ratio of a signal component of each of the subbands of the audio signal corresponding to the subbands of the stereo difference signal to a noise component of each of the subbands of the stereo difference signal.

Claim 17. (Previously presented) Noise reducer according to claim 16, wherein said weighting factor determination unit comprises

- a respective second adder to determine the control signal by subtracting a respective influence factor from the output signal of the division unit to reduce the influence of noise in the signal component to said control signal.

Claim 18. (Previously presented) Noise reducer according to claim 15, wherein said weighting factor determination unit comprises

- a mixer and a first lowpass filter to determine the noise component of the stereo difference signal by deriving its in quadrature component, and

- a second filter bank having the same characteristics as the first filter bank having the same characteristics as the first filter bank to determine the noise component of each of the subbands of the stereo difference signal.

Claim 19. (Previously presented) Noise reducer according to claim 18, wherein said weighting factor determination unit comprises

- a respective first rms determinator receiving a respective output signal of the second filter bank to determine the respective noise power corresponding to the respective noise component of a subband of the stereo difference signal.

Claim 20. (Previously presented) Noise reducer according to claim 19, wherein said weighting factor determination unit comprises

- a respective second multiplier to determine the noise component of a subband of the stereo difference signal by weighting the respective noise power according to a respective corresponding absolute threshold of masking, the fieldstrength of the received fm signal, a volume of output sound, a background noise level, the signal amplitude power of the audio

signal, a speed of a vehicle within which the stereo signal is reproduced, and/or the ratio of the signal power to the noise power of the difference signal of the corresponding subband.

Claim 21. (Previously presented) Noise reducer according to claim 16, wherein said weighting factor determination unit comprises

- a third filter bank having basically the same characteristics as the first filter bank to determine the signal component of each of subbands of the stereo sum signal corresponding to the subbands of the stereo difference signal.

Claim 22. (Previously presented) Noise reducer according to claim 18, wherein said weighting factor determination unit comprises

- a respective second rms determinator receiving respective corresponding output signals of the first filter bank, the third filter bank or the first and third filter banks to determine the respective signal power corresponding to the signal component of each of the subbands of the stereo signal.

Claim 23. (Previously presented) Noise reducer according to claim 22, wherein said weighting factor determination unit comprises

- a respective third multiplier to determine the signal component of each of the subbands of the stereo signal by weighting the respective output signal of the first filterbank with a weighting factor according to the fieldstrength of the received fm signal, a volume of output sound, a background noise level, the signal amplitude power of the audio signal, a speed of a vehicle within which the stereo signal is reproduced, and/or the ratio of the signal power to the noise power of the difference signal of the corresponding subband.

Claim 24. (New) Method according to claim 1, characterized by using noise included in the stereo audio signal as a probe signal and an audio component of the audio signal as a mask signal.

Claim 25. (New) Computer program product, comprising computer program means adapted to perform the method steps as defined in claim 1 when it is executed on a computer or digital signal processor.